



Lighting food. Brightening faces.

Affinium™ LED lighting systems for refrigerated display cases

PHILIPS

sense and simplicity



Light up frozen food sales

Affinium LED modules are a brighter, more energy-efficient way to light up your sales of refrigerated and frozen food. Designed for new installations as well as retrofit of existing fluorescent systems in refrigerated display cases, they offer improved product visibility and presentation with a lower cost of ownership. The Affinium LED lighting system for refrigerated display cases is an environmentally friendly, cost-effective, and low-maintenance solution that looks good from any angle.

The real cost

The refrigerated display section of a supermarket or convenience store requires a substantial capital investment. In addition to the initial investment in display equipment, operating expenses such as electricity and maintenance pose a significant hit to the retailer's balance sheet.

Wasted electricity

A study performed by the United Nations Environment Program suggests that worldwide, refrigeration equipment represents approximately 35–50% of a supermarket's electric bill*, 25% of which is consumed by display case lighting. Traditionally, the products inside display cases have been lit with fluorescent lamps. Although considered an efficient light source under normal conditions, fluorescent lamps perform poorly in cold temperatures. In fact, these lamps only perform at 20% of their optimal light output. Additionally, most of the energy consumed by this antiquated lighting system is converted to heat within the display case. This heat requires the cooling system to work harder and to consume more energy to maintain the required temperature.

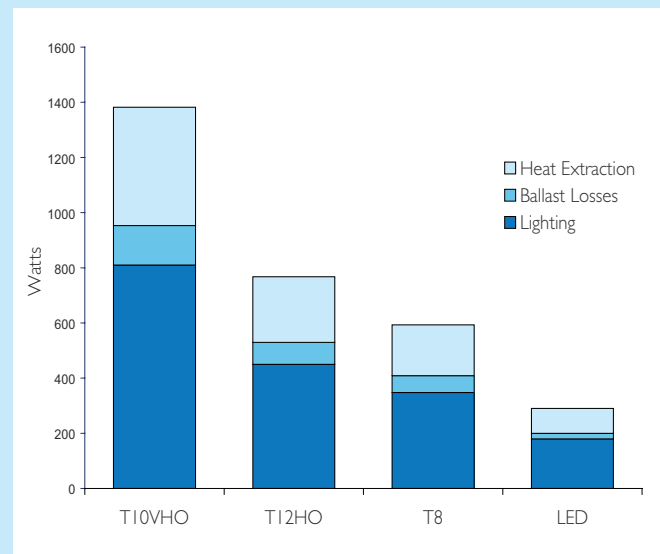
Costly maintenance

The cold and harsh environment of a cooler or freezer also has a negative effect on the lifetime of a fluorescent lamp. Lamps often have to be replaced within months of installation and this frequent re-lamping, as well as unplanned spot replacement, results in substantial maintenance costs.

A better way of lighting

Now, thanks to Philips, you can take advantage of the most advanced LEDs available in the market. Our Affinium LED modules drastically lower the energy consumption required to achieve your desired lighting levels. In fact, a 25W Affinium LED module can replace a less efficient 78W fluorescent solution and still provide a higher quality of light.

Annual lighting power consumption in a five-door refrigerated display case



Based on 100 hours operation time of refrigerated lighting per week (including restock).

Heat extraction is the additional cooling power required to extract the heat generated by the light source (typical values).

Comparison values based on Philips lamp data.

*UNEP, 2002 Report of the Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee. 35–50% of total energy bill.



Better product visibility

Switching to an Affinium LED lighting system can offer dramatic improvements in product presentation and visibility.

Traditional fluorescent systems fail to illuminate where it matters most — the merchandise at the center of your shelves. The Affinium LED lighting system benefits from our expertise in LED technology and optics design. Our systems are specially designed to distribute light uniformly across display case shelves, effectively eliminating shadows and hot spots. What's more, the unique optic design of the Affinium LED light source is optimized to focus on merchandise, rather than throwing light unnecessarily into the store aisle, and the module's slim profile is not directly visible outside of your display case.

LEDs also have minimal output degradation and color shift so the light remains consistent throughout their long service life. In addition, there is no warm-up time, which allows the system to be turned off and back on again as needed.



Fluorescent System



Affinium LED Lighting System

Lighting that improves more than your bottom line

LEDs are the clear choice when it comes to sustainability, corporate responsibility, and reduced environmental impact. Compared to fluorescent lamps, they contain no mercury or lead and significantly reduce emissions such as CO₂.

The Affinium LED lighting system has received Philips Green Flagship certification. This certification guarantees excellent light quality. It is given to products that are proven to offer better environmental performance than their predecessors or competing products. Evaluations are based on energy consumption, hazardous substances, weight, and lifetime reliability.

Philips Lighting: committed to providing sustainable lighting solutions to enhance the lives of people today and in the future.



Energy Efficiency

- Affinium LED lighting systems are energy efficient and hence help reduce CO₂ emissions.



Lifetime Reliability

- Affinium LED lighting systems offer a long and reliable life and in this way help reduce end-of-life costs.



Minimized Hazardous Substances

- Affinium LED lighting systems contain no mercury.



Best in Environmental Performance



Dow Jones Sustainability Indexes
Member 2006/07

Philips is a leader in the leisure goods sector of the Dow Jones Sustainability Index in 2007

Philips Green Flagship products and ISO 14001 certification

Environmental management systems like ISO 14001 focus on improving the environmental performance of your organization. One of its requirements is to evaluate relevant environmental parameters and define an environmental improvement program.

Philips Green Flagship products help you to:

- Reduce the amount of hazardous substances
- Save on the amount of CO₂ emissions
- Reduce the amount of waste

So, by choosing Philips Green Flagship products, you can improve the environmental profile of your company and help meet your sustainability and ISO 14001 targets.

A practical example

Retrofitting all refrigerated display cases from fluorescent lamps to Affinium LED modules could have a huge environmental impact. In fact, retrofitting just one five-door case in a 24/7 store could save:

- 75 trees annually
- 5603 kWh per year — the energy consumption of nearly two households per year
- Plus two tons in CO₂ emissions annually

With the introduction of Affinium LED lighting systems, Philips has cut energy consumption for refrigerated display lighting to an industry-leading low. Isn't it time you made the switch?



Measurable benefits you can count on

Enhanced safety

The design of Affinium LED modules avoids contamination of the freezer environment — the lamps cannot break inside the freezer and expose your customers, employees, or products to glass or mercury.

The 24V DC Class-II LED driver also provides safe operation even when the wiring might be damaged.

Easy installation

Affinium LED modules are easy to install using our specially designed mounting system. Whether new equipment or retrofit, the slim profile of the modules enables easy installation for your varied refrigerated display case applications.

Compliances and approvals

Affinium LED modules comply with all relevant legislation including:

- ENEC
- CE
- Product safety, class III
- RoHS compliant
- EU directive 2002/95/EC
- WEEE
- UL
- NSF

A better experience for you and your customers

Implementing sustainable lighting solutions for your business has never been easier, or more beneficial for you and your end user. With the Affinium LED lighting system for refrigerated displays, shoppers benefit from an improved customer experience with bright and inviting illumination that makes product identification and selection easier than ever.

Our state-of-the-art Affinium LED lighting systems also provide a measurable reduction in your cost of ownership. By significantly lessening energy and material waste, as well as the cost associated with the frequent relamping required with antiquated fluorescent options, our Affinium LED lighting systems offer a lucrative win-win opportunity.

The time to act is now

As energy costs grow larger, so does your cost of waiting. To find out the significant impact that Affinium LED lighting systems can have on your bottom line, contact your Philips sales representative today.



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